bio-protocol Preprint

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Muscle myoblast isolation and culture

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An abbreviated version of this protocol was published in eLIFE in Sep 2016

Stage-specific effects of Notch activation during skeletal myogenesis

DOI: 10.7554/eLife.17355

Detailed protocol

Please refer to a detailed protocol here:
Kim, K. H., Qiu, J., & Kuang, S. (2020). Isolation, Culture, and Differentiation of Primary Myoblasts Derived from Muscle Satellite Cells. Bio-protocol, 10(14), e3686-e3686.
Please note that MCK is expressed late during differentiation and we only see few labeled myotubes using MCK-Cre/Rosa26-RFP. In you case in may be difficult to detect reduction of S6K1 depending on the stability of its mRNA and protein (after you knockout the S6K1 gene, the existing mRNA and protein products may still last for a while). The problem is that one can't wait for the mRNA and protein to degrade as once myotubes are formed, they will contract spontaneously and often detach from the culture plate.

How to cite:（Readers should cite both the Bio-protocol preprint and the original research article where this protocol was used）

1. Kuang, S. (2021). Muscle myoblast isolation and culture. Bio-protocol Preprint. bio-protocol.org/prep843.
2. Bi, P., Yue, F., Sato, Y., Wirbisky, S., Liu, W., Shan, T., Wen, Y., Zhou, D., Freeman, J. and Kuang, S.(2016). Stage-specific effects of Notch activation during skeletal myogenesis. eLIFE. DOI: 10.7554/eLife.17355

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